

## WE CLAIM:

1. A method for producing a fibrin sealant comprising mixing a human recombinant fibrinogen, recombinant human thrombin, recombinant human factor XIII and calcium ions together, wherein the fibrinogen is present at a concentration in solution of 20-30 mg/ml, the factor XIII is present in solution at a concentration of 3-10  $\mu$ g of factor XIII per mg of fibrinogen present in solution, thrombin is present in solution at a concentration of 5-300 I.U./ml, and the calcium ions are present in solution at a concentration of 5-20 mM.

2. A method for producing a fibrin sealant comprising mixing a human recombinant fibrinogen, recombinant human thrombin, recombinant human factor XIII and calcium ions together, wherein the factor XIII is present in solution at a concentration of at least 3  $\mu$ g of factor XIII per mg of fibrinogen present in solution.

3. A fibrin sealant produced according to the process of claim 2.